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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,869	10/16/2003	Neal Franks	10135.210-US	2981

25908 7590 07/02/2004

NOVOZYMES NORTH AMERICA, INC.  
500 FIFTH AVENUE  
SUITE 1600  
NEW YORK, NY 10110

EXAMINER
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ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/686,869

Applicant(s)

FRANKS

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

## A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11-03, 10-03

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/00811 or Japanese Patent Number 3249291 in view of WO 93/22491 or WO 97/16408.

WO 96/00811 or Japanese Patent Number 3249291 teach pulping waste paper newsprint at a pH between 4 and 8.5 in the presence of a lipase (see WO 96/00811, see page 7, lines 1-11 or Japanese Patent Number 3249291, see abstract) and a surfactant to dislodge and remove ink particles. WO 93/22491 or WO 97/16408 teaches using fatty acid esters as surfactants in the deinking of paper. It would have been obvious to substitute the fatty acid esters of WO 93/22491 or WO 97/16408 for the surfactants of WO 96/00811 or Japanese Patent Number 3249291 as they perform the same function of aiding in the deinking of paper. The claimed fatty acid esters appear to be known surfactants and obvious variants of each other. It would have been obvious to use any fatty acid ester obvious variant for the surfactants of WO 93/22491 or WO 97/16408. The newsprint and advertisements (Example 1) of WO 96/00811 or Japanese Patent Number 3249291 would include both magazines and newspapers. It would have been obvious to deink newspapers and/or magazines together or separately, see the Example, page 15 for mixture of 80% newspaper and 20% magazine (advertisement paper) and a consistency of 5% by weight. It would have been especially obvious to use lipase in combination with an acid ester for deinking

as such is taught by WO 97/16408. Note that US. Patent 6,380,410 is being relied on as a translation of WO 97/16408 as they are patent family equivalents.

If the claimed fatty acid esters of claims 12-20 are not obvious variants, then an election of species requirement will be made. Applicant should indicate in any response to this office action whether or not the claimed fatty acid esters are obvious variants. If they are not, then Applicant should elect a single fatty acid ester to be examined.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 the term "lipase" is misdescriptive. It is not clear if this includes esterases. Page 3 of the specification defines "lipases as including esterase and ferulic acid esterase, EC 3.1.1.2 and EC 3.1.1.1 respectively. Esterases and lipases are both carboxylic ester hydrolases (EC 3.1.1), but an esterase (EC 3.1.1.1, EC 3.1.1.2) is not a lipase (EC 3.1.1.3, EC 3.1.1.34, EC 3.1.1.23). Does Applicant intend to include the species esterase and ferulic acid esterase in the claims?

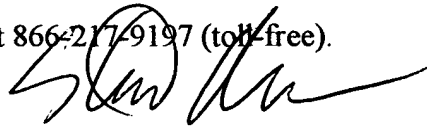
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 5:45 AM - 2:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steve Alvo  
Primary Examiner  
Art Unit 1731

msa